

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference M/WAS-088-PC		FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/014632	International filing date (day/month/year) 22.12.2004	Priority date (day/month/year) 27.01.2004	
International Patent Classification (IPC) or national classification and IPC G01 N21/53, G08B17/107, G08B29/04			
Applicant WAGNER ALARM- UND SICHERUNGSSYSTEME GMBH			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

- a. ☒ (sent to the applicant and to the International Bureau) a total of 4 sheets, as follows:
- ☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))

related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the report
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014632

Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- ☐ the international application as originally filed/furnished
- ☒ the description:

pages 1-16 _____ as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

- ☒ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1-18 _____ received by this Authority on 27.05.2005 with letter

nos.* _____ received by this Authority on of 25.05.2005

- ☒ the drawings:

sheets 1/5-5/5 _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014632

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-22

YES

Claims

NO

Inventive step (IS)

Claims 1-22

YES

Claims

NO

Industrial applicability (IA)

Claims 1-22

YES

Claims

NO

2. Citations and explanations (Rule 70.7)

1. This report refers to the following documents (D) cited in the search report; the numbering will be retained throughout the proceedings:

D1: US-B1-6 184 537 (KNOX RONALD ET AL)

6 February 2001 (2001-02-06)

D2: US 2003/001746 A1 (BERNAL BRIAN ANDREW ET AL)

2 January 2003 (2003-01-02)

2. Document D1 is considered the prior art closest to the subject matter of claim 1 and discloses all the features of the preamble of claim 1; see column 3, line 61 to column 4, line 25 and figure 1.

Claim 1 contains the following features which differ from D1:

- a) the scattered light signal passes through a filter algorithm stage for evaluation of the scattered light signal as a function of certain filter algorithms and
- b) the scattered light signal is filtered

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

differently as a function of its steepness in the filter algorithm stage prior to comparison with pre-set threshold values.

The present invention can therefore be considered to address the problem of developing a method (and a device) which is more effective, more versatile, more accurate and less expensive.

The solution proposed in claim 1 of the present application can be considered inventive (PCT Article 33(3)) for the following reasons:

Signal evaluation is not disclosed in D1. An example of that type of evaluation can be found, for example, in D2, paragraphs 47-58 and figures 3, 8 and 9. D2 uses a microprocessor with a corresponding algorithm to evaluate the signals; see paragraph 50. D2 indicates only that false alarms resulting from short-term changes in the "clean air voltage" are to be avoided with the aid of an algorithm; see paragraph 47.

Claim 1, however, discloses a filter algorithm stage with "specific filter algorithms". The filter algorithms are explained in claim 1, however, only by way of the additional feature, feature b), and in addition on page 14, lines 6-11 and 24-32 of the description.

Nevertheless, despite the non-detailed disclosure in claim 1, features a) and b) thereof are not

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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PCT/EP2004/014632

Box No. V

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suggested by D2.

The subject matter of claim 1 and that of the corresponding device claim, claim 12, which refers back to claim 1, therefore involves an inventive step and thus meets the requirements of PCT Article 33(1).

3. The same also applies to dependent claims 2-11 and 13-18.

4. If the application is pursued in the regional phase, the following points should also be noted:

4.1 Pursuant to PCT Rule 5.1(a)(ii), the description should cite documents D1 and D2; the relevant prior art therein should be briefly outlined.

4.2 The description should be brought into line with any claims that are submitted; see, in particular, pages 4-6.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box III

The original claim 1 related to an inordinately large number of possible methods. In fact, they comprise so many alternatives, possible permutations and/or restrictions that they appear unclear or too broadly worded to the extent that it was impossible to conduct a meaningful search (PCT Article 6). The search was therefore directed to the parts of the claims which can be considered clear and concise, namely to the embodiment disclosed in the original independent device claim 11 and in the claims that are dependent thereon.

In other words, in independent claim 1, a search was carried out only for the method step "that the scattered light signal passes through a filter algorithm stage for evaluation..., and the scattered light signal is filtered...". Dependent claims 3-6 and 9 were also searched.

It appears possible at the current time to draft an examination report relating to the newly filed claims 1-22.